### TF Implementation of Strategic Reserves

17 February 2014



### Agenda TF ISR - 17/2/2014 (16h-17h30)



#### Location:

Elia Headquarter, Keizerslaan 20, 1000 Brussels (Meeting room 00.20)

Welcome coffee from 15.30h onwards.

Topic	Presenter	Time
<ul> <li>General introduction</li> <li>Internal rules TF ISR</li> <li>Practical arrangements TF ISR</li> </ul>	Elia	15 minutes
To be confirmed: Intervention by the representative of the Minister	Rep. of the Minister	5-10 minutes
<ul> <li>High-level description of the Elia view on the SR design</li> <li>Implementation planning</li> <li>Consultation planning</li> </ul>	Elia	30 minutes
Stakeholder views on SR	Stakeholders	30 minutes



### **Agenda**



16h00

- General introduction
- Internal rules TF ISR
- Practical arrangements TF ISR

16h15

Intervention by the representative of the Minister

16h25

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17h30



# Introduction The Plan Wathelet

The "Plan Wathelet" is a broad plan initiated by Secretary of State for Energy Wathelet with the aim of guaranteeing Belgian electricity security of supply in the future.

As such, the "Plan Wathelet" consists of several elements:

(based on the government decision of 5 July 2013)

- > Reinforcement of the profitability of existing power plants and thereby avoiding their decommissioning
- A public tender aiming for 800 MW of new gas-fired units
- 10 year lifetime extension of the nuclear plant Tihange 1
- Creation of strategic reserves
- Increasing interconnection capacity
- Improving demand side participation

→ This Task Force solely deals with the implementation of strategic reserves, not with any other part of this plan. It takes the (likely) amended Electricity Law as a starting base for its activities.



# Introduction From "Plan" to implementation of strategic reserves

Government Decision of 16/12

#### How do strategic reserves look like?

(based on the information available on the public website of M. Wathelet)

- At the end of the year (by 15/11 at the latest) Elia analyses the situation and the risks for security of supply fot the winter of the next year
- Based on this analysis, the administration will provide an advice
- Based on this advice, the Minister for Energy decides on the the size and duration of strategic reserves
- Elia will then organize a tender for this strategic reserve
- Have to participate: alle production units for which closure is announced + all production units which are temporarily shut down
- Can participate: demand side (large consumers, aggrgators)
- CREG will control the contracted prices and approve the functioning rules for using the reserve in order to guarantee that the reserve won't negatiovely impact the market.



# Introduction Goal of the task force

Anticipating the possible implementation of Strategic Reserves for the Winter 2014-2015, Elia anticipates via this Task Force on the implementation of such mechanism and the possible tender to be carried out in the next months.

- → Inform market parties and stakeholders on all relevant items linked to the implementation of strategic reserves
- → Consult market parties and stakeholders, in particular on the tendering procedure (incl. all relevant items concerning this procedure such as selection criteria, product requirements, tender rules,...) and the functioning rules (incl. detection, activation, for strategic reserves to be written by Elia and approved by CREG.

The activities of this task force and its results are subject to the actual publication of an amended Electricity Law paving the way for strategic reserves.

Given the sense of urgency, the activities of this task force, even without the amended law being voted and published yet, serve as the fulfillment of Elia's obligation on consulting its stakeholders and the market parties.



### Internal rules TF ISR & practical arrangements

Convenor: Emeline Spire (Elia)

Secretary: Patrik Buijs (Elia)

#### Language:

• Supporting material will be prepared in English + the meetings will be presented in English as well, however, participants are free to express themselves in the language of their choice (NL/FR/UK)

Minutes: English.

Final official documents (procedure and functioning rules): French / Dutch

#### **Publications:**

- All documents will be made public via the website of the Users' Group
- Draft minutes will be made available 7 working days after each meeting, participants can comment via mail and finally minutes will be formally validated each next taskforce.

#### Stakeholder involvement:

- During the meeting interaction is expected.
- In between meetings: reactions in writing are invited.
- All reactions in writing outside the meetings will be made publically available via the website of the Users' Group



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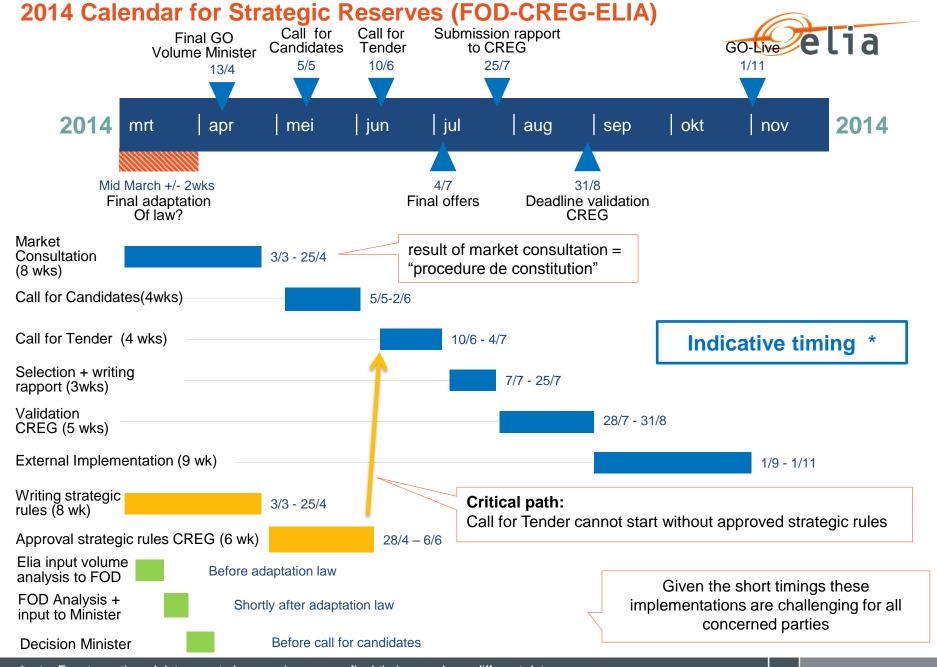
17h30

### **2014 Calendar for Strategic Reserves**



- Art. 5 § 2. Bij wijze van overgangsmaatregel sluiten de Algemene Directie Energie, de netbeheerder en de commissie zo spoedig mogelijk een akkoord over de planning voor 2014 van implementering van de verschillende stappen voorzien door de artikelen 7bis tot 7septies. Deze planning mag afwijken van de door deze artikelen vastgestelde termijnen. Het akkoord wordt gepubliceerd op de website van de netbeheerder en van de commissie.
- Very ambitious to implement Strategic Reserves < 1/11/2014:</li>
  - Law expected to be adopted mid March;
  - Public consultation required by law;
  - European tendering procedure requires certain obligated steps and timings;
  - New products, new contracts and strategic rules must be designed;
  - Quite some IT developments will be required (@ Elia but also for suppliers)
  - o Etc...

⇒ Planning on next slide is the result of alignment between FOD, Elia and CREG.



### Scope of the Market Consultation <25/04



After consultation, Elia has to determine and publish the modalities of the procedure for constitution of Strategic Reserves.

This consultation will cover, amongst others, these elements:

- Modalities for participation in strategic reserves;
- Product requirements
- Certification process;
- Tendering process;
- Bidding instructions and rules;
- Selection rules and criteria;
- Duration of contracts;
- Principles for penalties;

- ...

⇒ Elia will finalize its proposals taking into account the input of this Taskforce.

### Scope of the Market Consultation <25/04



Beside the procedure for constitution of Strategic Reserves Elia also has to write functioning rules

These rules will be introduced for approval by CREG. The principles in the functioning rules will also be presented in this taskforce for consultation. Some examples:

- How and when will Strategic Reserves be activated;
- How will Imbalance pricing take into account such an activation;
- Transparency;
- Etc ...

⇒ This will allow Elia to introduce functioning rules for strategic reserves taking into account feedbacks given via this Taskforce.



### **Consultation planning**

The following meetings are foreseen for this Task Force, taking into account the necessity to conclude timely for launching the tender:

Date	Time	Location
Monday 17/2/2014 (today)	16.00-17.30	Elia Emperor
Friday 28/2/2014	13.30-17.30	VBO-FEB (BXL, Rue Ravenstein 4)
Wednesday 19/3/2014	9.00-13.00	Elia Emperor
Wednesday 16/4/2014 (*)	9.00-13.00	Elia Emperor

<sup>(\*)</sup> Note: 16/4 is in the second week of the Belgian Easter school holiday!

The agenda for each meeting will be distributed 5 working days before the meeting, at the latest.



#### Introduction & disclaimer

#### Overall goals and principles taken into account include:

- Limit the negative impact of strategic reserves on the energy market
- Aim for techno-economic efficient solutions in the entire design
- Aim for effective solutions
- Aim for solutions which are feasible to reasonably implement (at Elia, but also in relation to market parties and others)
- Do not unnecessarily overcomplexify system operation



### High-level view of Elia on the SR design

The 'life-cycle' of SR follows the typical cycle of other reserve products, with each step obviously having its particular characteristics tailored to the product at hand.





### High-level view of Elia on the SR design

#### 1. Detection

- Economic trigger based on Belpex non-clearing
- Technical trigger based on technical system assessment

#### 2. Notification

- Select & inform SR for warming
- Inform market on the use of SR

#### 3. Verification

- Verify the need for SR before going over to actual injection
- Take a decision on actual injection

### 4. Injection & Balancing

- SR actually injects
- Impact on balancing prices depending on real-time situation

D-1 until 18h, continuous follow-up, also Intraday

Real-Time minus Y hours

Real-Time minus X hours

Real-Time

Note: Timings are for indicative purpose only and will depend on actual procedures and/or terms of contract (e.g. X and Y).



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# **ANNEX**



### **Step 1: Detection**

## A combination of two activation triggers with clear priorities for detecting the need of SR to be launched is useful:

#### Economic trigger: Activation is linked to Belpex-DAM non-clearing

- Limited to Belgian curtailment
- •Offered to 'avoided curtailed Belgian bids' at 3000 €/MWh
- •If insufficient to cover all Belgian curtailment, then normal curtailment rules apply on the remaining volume.
- •Elia becomes counterparty in Belpex. No individual bidding of SR into Belpex
- Avoiding cross-border impact
- •→ Complementary process "after" the actual CWE/NWE DAM clearing
- The market will be informed when the economic trigger is "triggered"

## **Technical trigger:** Activation based on continuous monitoring of the system by the transmission system operator

- Only complementary compared to economic trigger. The economic (market-based) trigger has priority in activating SR. Only remaining SR volumes after the economic trigger (if any) could be used in the technical trigger.
- Technical trigger can occur without economic trigger
- The technical trigger is first evaluated in the evening at D-1, but is afterwards continuously monitored. This implies that the technical trigger is not fixed to a single moment, unlike the economic trigger.

→ The output of the detection phase is a required SR profile to be activated in the next phases.



### **Step 2: Notification**

# Given the required profile determined in the detection phase, the next steps are:

#### Selection of the SR to be activated for 'warming up'.

- Elia selects SR based on a techno-economic evaluation.
- *Note:* 'warming up' does not directly imply injection, this first requires 'verification' (cf. next steps). After this stage 'cancellation' is still possible.

#### Elia notifies the selected SR.

The selected SR take the necessary steps allowing timely delivery of the requested volumes. i.e.
power plants start pre-heating and conditioning plant chemicals, customers get notified of a
potential interruption.

#### Elia informs the market, in particular the BRPs on the use of strategic reserves.

- Avoid discrimination by informing **all** parties, and not only the parties with SR in their portfolio.
- Warn participants about anticipated problematic situations later on and of the risk of high balancing prices in case of confirmation of the problematic situation.
- Such warning is given independent of the trigger,

→ The main output of the Notification phase is the start-up of selected SR. Putting SR ready into 'hot' conditions should significantly reduce further lead times.



### **Step 3: Verification**

Once SGR and/or SDR SR have been notified, they reach the moment to decide if they actually have to inject energy in the zone or not (yet). The need is verified by Elia.

#### Elia verifies the anticipated need of SR.

- The need defined via the economic trigger has not changed. However, better information on the indicators feeding the technical trigger might be available.
- Verification increases efficiency, in terms of costs and in terms of limiting market distortion.

## Depending on the result of the verification, Elia instructs the notified SR to inject, 'keep warm' or stop.

- The information to inject includes a volume set-point (e.g. at P<sub>min</sub> or another setpoint depending on the need).
- A techno-economic evaluation to decide between 'keeping warm' (but not injecting) and stopping.
   This evaluation should include the risk on the need for SR later on.

→ The main result of the verification phase: notified SR are confirmed to start injecting energy/reduce demand into the control area.



### **Step 4: Injection & Balancing**

Once verified, SR will be actually injecting and become visible in the control area's position. This impacts the balancing market.

SR injects into the control area. Different effects created by injection as a consequence of economic and/ or technical trigger.

- Energy for meeting the **economic trigger** has a **counterparty via the day-ahead market** and does not affect the balancing market.
- Energy for meeting the **technical trigger** has **no ex ante counterparty** is intended to cover structural imbalances. It has an **impact on the balancing market.**

Imbalance pricing has to take into account the SR injection and reflect at all times the actual situation.

• If SR is injecting energy and if there is 'structural' shortage, then imbalance prices have to reflect this and go very high. This means significantly higher then the DAM activation price of 3000€/MWh.

→ The main result of the injection phase is that SR actually inject into the zone and influence the zone's position and that the balancing market reflects this appropriately.